



Allied Telesyn  
International

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CentreCOM  
AT-MX20T  
*Micro Transceiver User Manual*

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## Overview

The Micro Ethernet Transceiver Series of products are direct-attach IEEE 802.3 and Ethernet Version 1.0 and 2.0 devices. ATI supports all common Ethernet media with Micro Transceivers for thin coax (10BASE2), UTP (10BASE-T) and Fiber Optic (10BASE-FL, FOIRL) LAN systems. The transceivers support a single AUI that attaches directly to the AUI 15-pin connection found on most Ethernet stations (DTEs). Direct AUI connection reduces cabling costs for the installer.

All ATI transceivers are equipped with LEDs providing status and diagnostic information. LEDs make LAN installation and troubleshooting easy for the installer. An easily accessible, user-selectable SQE/Heartbeat switch is also provided on all models. ATI uses quality product packaging for increased reliability. ATI shows a high level of confidence in its micro transceiver products, which come with a 5 year warranty.

## Preparation

An SQE Test switch (heartbeat) is available to provide IEEE 802.3 Ethernet SQE Testing. If required, place the SQE Test switch in the "ON" position. If the DTE does not require an SQE Test, or if the DTE is a repeater, place the SQE Test switch in the "OFF" position. ATI recommends disabling the heartbeat function when the Ethernet MAU is connected to a repeater to eliminate possibility of excessive collisions.

## Installation

The AT-MX20T connects directly to a DTE or workstation AUI connector. Plug into the 15-pin connection on the DTE and slide the connector latch into place. Power on the DTE and verify that the Power LED is lit. Check to ensure the SQE Test setting is appropriate for equipment per the above requirements. Plug a UTP cable into the RJ45 receptacle located on the AT-MX20T transceivers. Stations will communicate if a good Link LED on both local and remote AT-MX20T transceiver is lit. The AT-MX20T provides diagnostic and status information with Link, Receive, Transmit and Power LEDs. If another AT-MX20T MAU is at the opposite end of the line, UTP cabling must be crossed, i.e., TD+ and TD- signals must be swapped with RD+ and RD- signals respectively. 26 to 22 AWG (0.4 - 0.6mm) UTP cable with  $100\ \Omega$  impedance is needed. Level 3 or better cable should be used. IEEE 802.3 Specifications: 100m (328 ft) maximum UTP cable link segment.

## Vorbereitung

Um einen SQE-Test (Heartbeat) gem IEEE 802.3 Ethernet durchfuehren zu koennen, steht ein entsprechender Schalter zur Verfuegung. Bei bedarf kann dieser SQE Testschalter auf "ON" gestellt werden. Wird die Funktion nicht benoetigt, oder ist das Endgeraet ein Repeater, ist die Stellung "OFF" zu waehlen. ATI empfiehlt, die Heartbeatfunktion nicht zu aktivieren, wenn die Ethernet MAU mit einem Repeater verbunden ist, um die Moeglichkeit uebermaessiger Kollisionen auszuschalten.

## Installation

Der AT-MX20T wird direkt mit dem AUI Anschluss des Endgeraetes oder der Workstation verbunden. Stecken Sie den Transceiver in die 15-Pin-Busche des Endgeraetes und lassen Sie den Stecker einrasten. Schalten Sie den Rechner ein und kontrollieren Sie die Poweranzeige. Ueberzeugen Sie sich davon, dass der SQE Testschalter Ihren Anforderungen entsprechend eingestellt ist. Stecken Sie jetzt den RJ45 Stecker des UTP Kabels in die dafuer vorgesehene Busche des AT-MX20T Transceivers. Wenn die Polaritaetsanzeige leuchtet, ist nichts weiteres zu unternehmen, da lediglich angezeigt wird, dass das automatische Vertauschen der Empfangsleitungen ordnungsgemaess ausgefuehrt wurde. Stationen koennen miteinander kommunizieren, wenn die Linkanzeigen der beiden AT-MX20T Transceiver am Anfang und am Ende der Uebertragungsstrecke leuchten. Der AT-MX20T sieht Diagnose- und Statusinformationen mit Power, Link, Receive und Transmit LEDs vor. Ist ein weiterer AT-MX20T am anderen Ende der Leitung angeschlossen, muss das UTP Kabel gekreuzt werden, d.h. TD+ and TD- Signale muessen mit RD+ und RD- Signalen getauscht werden. Verkabelungsgrundlage ist ein  $100\ \Omega$  UTP Kabel 22 bis 26 AWG (0.4 - 0.6mm). Die IEEE 802.3 Spezifikation begrenzt ein UTP Link Segment auf max. 100m (328 ft).

## **Allied Telesyn Limited Warranty**

Allied Telesyn (ATI) warrants to the original consumer/purchaser that each of its products, and all components thereof will be free from defects in materials and/or workmanship for 5 years (for the Micro Transceiver series of Products) from the original date of purchase. Any warranty hereunder is extended to the original consumer/purchaser and is not assignable.

In the event of a malfunction or other indication of product failure attributable directly to faulty workmanship and/or materials, ATI will, at its option, repair or replace the defective products or components at no additional charge as set forth herein. Repair or replacement product will be furnished on an exchange basis and will be either reconditioned or new at the option of ATI. All replacement parts become the property of ATI. This limited warranty does not include service or repair damage to the product resulting from accident, disaster, misuse, neglect or modification of the product.

Service under this warranty may be obtained by returning the product to ATI, and only after receiving authorization by ATI by issuance of a Return Material Authorization (RMA) number, with shipping charges prepaid, in the original shipping container or like container, and with proof of date of purchase included with the returned product. The RMA number MUST be marked clearly visible on the outside of the shipping container. Any material returned without such RMA markings shall be rejected and returned to sender unopened. There shall be no warranty for either parts or labor after the expiration date of 5 years (for the Micro Transceiver Series of Products) from the original date of purchase, unless the original consumer/purchaser has purchased an Extended Warranty. Warranty beyond the fifth year is subject to the terms of the extended warranty program purchased.

Products will be returned to the consumer after repair or replacement has been completed and by the carrier and method of delivery chosen by ATI, to any destination within the United States of America. If the customer desires some other specific form of conveyance, or it is located beyond the U.S.A. borders, then the consumer shall bear the cost of the return shipment.

**ATI MAKES NO EXPRESS OR IMPLIED WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EXCEPT AS EXPRESSLY SET FORTH IN THIS WARRANTY. IN NO EVENT SHALL ATI BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, COSTS, OR EXPENSES ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE PRODUCT DELIVERED HEREUNDER.**

Some governments do not allow the exclusion or limitation of incidental or consequential damages for consumer products, so the above limitation of exclusion may not apply to you.

## **U.S. FEDERAL COMMUNICATIONS COMMISSION**

**Note:** This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## **CANADIAN DEPARTMENT OF COMMUNICATIONS**

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

Lé présent appareil numérique n'émet pas de bruits radio électriques dépassant les limites applicables aux appareils numériques de Classe A prescrites dans le règlement sur le brouillage radio électrique édicté par le ministère des Communications du Canada.

## **BESCHEINIGUNG DES HERSTELLERS/IMPORTEURS**

Hiermit wird bescheinigt, dass der AT-MX20T Micro Transceiver in Uebereinstimmung mit den Bestimmungen der Vfg. 1046/1984 Klasse B funk-entstoert ist. Der Deutschen Bundespost wurde das Inverkehrbringen dieses Geraetes angezeigt und die Berechtigung zur Ueberpruefung der Serie auf Einhaltung der Bestimmungen eingeraeumt. Von Benutzer zusammengestellte Systeme, die dieses Geraet beihalten, muessen den Bestimmungen von Vfg 1046/1984 entsprechen.

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## **SAFETY**



### **LIGHTNING DANGER**

**DANGER:** DO NOT WORK on equipment or CABLES during periods of LIGHTNING ACTIVITY.



### **Operating temperature**

This product is designed for a maximum ambient temperature of 40 degrees C.

### **Environmental Air Notice**

**CAUTION:** UL listed for use in other Environmental Air Spaces in Accordance with Article 300-22(C) of the U.S.A National Electrical Code. Note: Product is not Plenum rated.

**All Countries:** Install product in accordance with local and National Electrical Codes.

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## **SICHERHEIT**



### **GEFAHR DURCH BLITZSCHLAG**

**GEFAHR:** Keine Arbeiten am Gerät oder an den Kabeln während eines Gewitter ausführen.



### **BETRIEBSTEMPERATUR**

Dieses Produkt wurde für den Betrieb in einer Umgebungstemperatur von nicht mehr als 40° C entworfen.

**Alle Länder:** Installation muß örtlichen und nationalen elektrischen Vorschriften entsprechen.

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## **SIKKERHED**



### **FARE UNDER UVEJR**

**FARE:** UNDLAD at arbejde på udstyr eller KABLER i perioder med LYNAKTIVITET.



### **BETJENINGSTEMPERATUR**

Dette apparat er konstrueret til en omgivende temperatur på maksimum 40 grader C.

**Alle Lande:** Installation af produktet skal ske i overensstemmelse med lokal og national lovgivning for elektriske installationer.

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## **VEILIGHEID**



### **GEVAAR VOOR BLIKSEMINSLAG**

**GEVAAR:** NIET aan toestellen of KABELS WERKEN bij BLIKSEM.



### **Bedrijfstemperatuur:**

De omgevingstemperatuur voor dit produkt mag niet meer bedragen dan 40 graden Celsius.

**Alle landen:** het toestel installeren overeenkomstig de lokale en nationale elektrische voorschriften.

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## **SECURITE**



### **DANGER DE FOUDRE**

**DANGER:** NE PAS MANIER l'équipement ou les CABLES pendant les périodes d'activité orageuse.



### **TEMPERATURE DE FONCTIONNEMENT**

Ce produit est capable de tolérer une température ambiante maximum de 40 degrés Celsius.

**Pour tous pays:** Installer le produit conformément aux normes électriques nationales et locales.

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## **TURVALLISUUS**



### **SALAMANISKUVAARA**

**HENGENVAAARA:** ÄLÄ TYÖSKENTELE laitteiden tai KAAPELEIDEN KANSSA SALAMOINNIN AIKANA.



### **KÄYTTÖLÄMPÖTILA**

Tämä tuote on suunniteltu ympäröivän ilman maksimilämpötilalle 40°C.

**Kaikki maat:** Asenna tuote paikallisten ja kansallisten sähköturvallisuusmäärysten mukaisesti.

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## NORME DI SICUREZZA



### PERICOLO DI FULMINI

**PERICOLO:** NON LAVORARE sul dispositivo o sui CAVI durante PRECIPITAZIONI TEMPORALI ESCHE.



### Temperatura di funzionamento

Questo prodotto è concepito per una temperatura ambientale massima di 40 gradi centigradi.

**Tutti i paesi:** installare il prodotto in conformità alle vigenti normative elettriche nazionali.

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## SIKKERHET



### FARE FOR LYNTENNELSE

**FARE:** MÅ IKKE BRUKES på utstyr eller ledninger mens LYNAKTIVITET er i gang.



### Driftstemperatur

Dette produktet har blitt fremstilt til bruk med maksimum romtemperatur på 40 grader celsius.

**Alle land:** Produktet må installeres i samsvar med de lokale og nasjonale elektriske koder.

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## SEGURANÇA



### PERIGO DE CHOQUE CAUSADO POR RAIO

**PERIGO:** NÃO TRABALHE no equipamento ou nos CABOS durante períodos suscetíveis de QUEDAS DE RAIO.



### TEMPERATURA DE FUNCIONAMENTO

Este produto foi projetado para uma temperatura ambiente máxima de 40 graus centígrados.

**Todos os países:** Instale o produto de acordo com as normas federais e locais para instalações elétricas.

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## SEGURIDAD



### PELIGRO DE RAYOS

**PELIGRO:** NO REALICE NINGUN TIPO DE TRABAJO O CONEXIÓN en los equipos o en LOS CABLES durante TORMENTAS DE RAYOS.



### Temperatura requerida para la operación

Este producto está diseñado para una temperatura ambiental máxima de 40 grados C.

**Para todos los países:** Monte el producto de acuerdo con los Códigos Eléctricos locales y nacionales.

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## SÄKERHET



### FARA FÖR BLIXTNEDSLAG

**FARA:** ARBETA EJ på utrustningen eller kablarna vid ÅSKVÄDER.



### DRIFTSTEMPERATUR

Denna produkt är konstruerad för rumstemperatur ej överstigande 40 grader Celsius.

**Alla länder:** Installera produkten i enlighet med lokala och statliga bestämmelser för elektrisk utrustning.

For more information on ATI products available today and in the future, contact your local ATI representative:

Office:	USA	Germany	U.K.
Phone:	(408) 730-0950	030-435-9000	865-390-001
Fax:	(408) 736-0100	030-432-6163	865-390-002
Office:	France	Japan	Singapore
Phone:	1-6928-1617	03-3443-5640	65-2943332
Fax:	1-6928-3749	03-3443-2443	65-2946280

